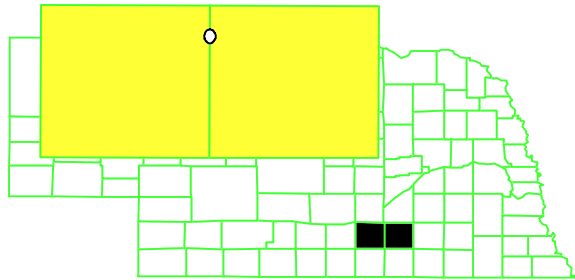


HASTINGS GROUND WATER CONTAMINATION

NEBRASKA

EPA ID# NED980862668



EPA Region 7

City: City of Hastings

**County: Adams County and Clay
County**

Other Names: Blayney

Ammunition Depot, Blayney

ExNaval Ammunition Base,

Hastings Plume,

**Former Naval Ammunition Depot
(NAD)**

SITE DESCRIPTION

Approximately 23,000 people live in the City of Hastings. Like most communities, industries have expanded to areas outside of the city limits. Farms and pastures surround the urban area, and many private and public wells lie within a 3-mile radius of the city. Ground water is used to irrigate crops and water stock and provides water for home and business use. A nearby stream and lake are used for recreation. Concerns regarding volatile organic compounds (VOCs), including commercial grain fumigants in the Hastings city water supply, were investigated by the State in 1983. As a result, Hastings took two municipal supply wells out of service and placed other contaminated wells on a standby basis. Community Municipal Services, Inc. (CMS), a private water supply system serving the areas east of Hastings, also took two of its three wells off-line due to pollution. Testing conducted by the City and the State assures that the water supplied to users by these two utilities is safe to drink. Due to the size and complexity of the Hastings site, the following site description is organized into its four geographical areas: Central Industrial Area; Commercial Area; Hastings East Industrial Park/Former Naval Ammunition Dump; and South Landfill. Central Industrial Area: This area encompasses commercial and industrial properties situated in the heart of Hastings, along the Burlington-Northern railroad right-of-way. The three subsites that make up this area are Colorado Avenue, Second Street, and Well #3. At the Colorado Avenue subsite, three different industrial solvents have been detected in soils. The source is suspected to be industrial discharges into the storm or sanitary sewers. The Second Street subsite was identified during the 1987 to 1988 investigation of Colorado Avenue. Pollution from an old coal gas plant operation was detected in the soil at this subsite and in the downgradient ground water. Contaminants include VOCs, polycyclic aromatic hydrocarbons (PAHs), and phenols. Well #3 subsite, named for M-3, one of the city wells taken out of service, is contaminated with carbon tetrachloride (CCl₄), a grain fumigant. A second plume of contaminated ground water containing chlorinated industrial solvents was identified in EPA's most recent investigation.

Commercial Area: This area, east of the Hastings city limits, contains the FAR-MAR-CO and North Landfill subsites. Operators of the FAR-MAR-CO subsite stored and handled agricultural products, mostly grains, for more than 30 years. VOCs, including toxic grain fumigants, have seeped into the soils and ground water. Grain dust explosions and spills from fumigant equipment on the subsite have contributed to the problem. While investigating soils at the FAR-MAR-CO subsite, the EPA discovered trichloroethane (TCA) contamination on a portion now owned by a different company. The new owner acknowledged the use of TCA as a metal cleaning solvent. This area became the TCA Contamination Area portion of the subsite, which was cleaned up in 1989. The North Landfill originally was a local brickmaker's clay pit. Hastings operated it as a landfill in the 1960s to dispose of various municipal and industrial wastes. Studies have revealed that the FAR-MAR-CO and North Landfill subsites are polluting downgradient wells with VOCs.

Hastings East Industrial Park/Former Naval Ammunition Depot (NAD): The former NAD, located about 2 miles east of Hastings, straddles two counties: Clay and Adams. The 48,000-acre NAD was used for loading armaments until the early 1950s, and later for the demilling of armaments until it was decommissioned in the early 1960s. The U.S. Army Corps of Engineers is conducting studies at the site under the authorization of the Department of Defense (DOD). The Corps has discovered that explosives, heavy metals, and VOCs are the major contaminants. Although contaminants that have been detected are generally consistent with the chemicals used by the Navy operations, the industries established in the Hastings East Industrial Park (HEIP) since the 1960s may have generated some of the VOCs being detected. The portion of this investigation focusing on surface soil contamination on 2,600 acres of the HEIP has been completed.

South Landfill: This landfill, southeast of the Hastings city limit, was operated by the City and accepted industrial waste during the 1960s and 1970s. Contamination at this subsite consists primarily of several types of VOCs.

Site Responsibility:

This site is being addressed through Federal, State, local, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 10/15/84

Final Date: 06/10/86

Deleted Date:

THREATS AND CONTAMINANTS

Description:

Ground water and soils at the various subsites are contaminated with a wide range of VOCs and other organic compounds. The NAD site is contaminated with heavy metals and explosives in addition to VOCs, and the Second Street subsite also contains PAHs. The city and CMS water supplies are safe for drinking. However, people and livestock may experience adverse health effects from drinking contaminated ground water around the subsites from domestic wells located outside the city limits.

CLEANUP APPROACH

Response Action Status

Well #3 Subsite is located in the Central Industrial area of Hastings. In 1989, EPA issued an Interim Action Record of Decision (ROD) selecting soil vapor extraction (SVE) as the technology to remediate the soils contaminated with Carbon Tetrachloride. EPA entered into a Superfund State Contract (SSC) with the state of Nebraska and began full-scale soil remediation in July 1992. In July 1993, EPA and the state determined that remediation of the soils was complete. EPA began groundwater cleanup in 1995 for Plume 1 when it installed a groundwater treatment system, using air stripping. EPA installed an irrigation system at a Hastings city park in the summer of 1998 for beneficial reuse of this extracted water (Operable Unit No. 13). Another Plume, Plume 2, is being addressed by Dutton-Lainson under an Administrative Order on Consent (AOC) to conduct a soil vapor extraction (SVE) removal cleanup. Removal activities began in March 1996. The AOC also requires that Dutton-Lainson monitor groundwater for the Plume 2 contaminants.

The Colorado Avenue Subsite is located in the central portion of the City. In 1988, the EPA issued an Interim Action Record of Decision (ROD) in which it selected soil vapor extraction (SVE) technology to cleanup approximately 800,000 cubic yards of contaminated soil. On September 28, 1990, after failing to negotiate an agreement to implement the (SVE) technology with the Colorado Avenue PRPs, EPA issued a Unilateral Administrative Order (UAO) to Dravo Corporation and Desco Corporation, the subsite PRPs, to construct and operate the (SVE) system. This UAO was subsequently amended on January 26, 1995 to add Eric Inc. The (SVE) system began operation in July 1996. In 1996, Dravo performed an air sparging pilot test. Presently, Dravo is installing an air sparging system and an in well stripping system to address contamination in part of the plume.

The North Landfill Subsite is located east of the City and north of Highway. The City operated a municipal/industrial landfill from 1962-1964. In 1991, EPA issued an Interim Action ROD which addressed both source control and the groundwater contamination. In October 1992, the City and Dutton-Lainson entered into an Administrative Order on Consent (AOC) to perform the remedial design. The design for the source control operable unit was completed in 1996 and consisted of improving the landfill cap and restricting public access and future land use. In the fall of 1998, the PRPs begin construction of the landfill improvements. The landfill improvements was completed in the summer 1999. The design process for the groundwater operable unit has been suspended by the EPA while the City of Dutton-Lainson participate in a removal action for the downgradient groundwater operable unit at the FAR-MAR-CO Subsite. The groundwater contamination at the FAR-MAR-CO Subsite has been commingled with groundwater emanating from the North Landfill Subsite.

The FAR-MAR-CO Subsite is located east of the North Landfill Subsite. On September 30, 1988, EPA signed an Interim Action ROD selecting (SVE) treatment to address the source

control. In September 1990, Farmland Industries, Inc. a former owner of the subsite, performed a pilot study of (SVE) to remove carbon tetrachloride and EDB from the soils. During the operation of the (SVE) pilot, over 1200 pounds of carbon tetrachloride and EDB were removed from the soils. In January 1992, Farmland agreed to design a full-scale (SVE) system. In August 1995, and Explanation of Significant Differences to the ROD was issued to extend the (SVE) operation to address the groundwater contamination as the source. Farmland and the current owner of the subsite, Cooperative Producers, Inc., have entered into a Consent Decree which requires that they perform source control using SVE. The court has not yet entered into the decree. In 1987, during EPA's investigation of the carbon tetrachloride and EDB contamination at the subsite, a separate area of soil contaminated by 1,1,1-trichloroethane (TCA) was found at the subsite (Operable Unit No. 11). Pursuant to the AOC, in December 1989, HIPCO excavated approximately 43 cubic yards of soil and transported it to a permitted disposal facility. A ROD for the (TCA) Operable Unit was signed in September 1990 in which no further action was determined necessary to address the (TCA) contamination. In December 1995, an Action Memorandum for the groundwater operable unit was signed. EPA entered into an Administration Order on Consent (AOC) with Morrison Enterprises in June 1996 to perform a groundwater removal action. Construction and installation of the groundwater extraction system began in December 1996 and began operation in July 1997. In the fall of 1998, Farmland began operation of full scale source control measures using SVE.

The Second Street Subsite is located in the central portion of the City. Construction and installation of a removal system began in the fall 1996 which addresses the soils and groundwater within the subsite's boundaries. The (SVE) system is currently operating and will be in operation for approximately two years. EPA installed and is operating the (SVE) system, with contribution by the City of Hastings. The EPA anticipates converting the (SVE) wells to a bioventing system, which can be utilized as a more long-term, less expense and sustained remedial technology. Construction of the groundwater source removal action began in the fall 1996 and began operation in January 1997. The contaminated groundwater is being treated using an air stripper with a catalytic oxidizer to destroy the benzene vapors.

The Former Naval Ammunition Depot (NAD) is located in eastern Adams and western Clay counties and consist of approximately 48,000 acres. The contaminants of concern are volatiles (VOCs), heavy metals, polynuclear aromatic hydrocarbons (PAHs) and explosives. The Corps of Engineers (COE) an agent for Department of Defense (DOD) has conducted or began the following cleanups: The COE completed in June 1995, a time-critical removal action to excavate two manholes, a catch basin, piping and contaminated soils, sludges and liquids for Operable Unit No. 8; a full-scale pilot system, incorporating air sparging via horizontal and vertical wells went on line in January 1995 (Operable Unit No. 14). The pilot was successful and is currently continuing as a removal action; the COE completed construction July 1998 of a soil repository (Operated Unit No. 4). Major components of the construction include excavation of low-levels of contaminated soils and incineration of excavated soils containing high levels of explosives and PAHs; construction of a (SVE) system began in October 1996 for buildings 104 and 135 areas to cleanup the soil contaminated with VOCs. A (SVE) system is currently being designed for Phase 2 to address the contaminated soil at building 130, South Disposal Area and Naval Yard Dump. The design is expected to be completed by fall 1998; and the COE have completed a draft remedial investigation reports which addresses other areas within NAD that are suspected to be

contaminated and contaminated groundwater beneath the site.

The South Landfill Subsite is located in the southeast section of Hastings. During the 1960's and 1970's, industrial waste was disposed at the landfill. EPA began field investigation in 1994 and confirmed the presence of industrial solvents in the landfill. EPA has developed the Remedial Investigation report on the findings of the investigation. Any cleanup decision for this subsite will be part of the area wide remedy. No cleanup is currently being performed at this subsite. The EPA has completed a Remedial Investigation report which addresses the area-wide groundwater contamination for the City's subsites and a risk assessment to determine the risks associated with contamination in the aquifer underneath the City of Hastings. Presently, the PRPs are developing the feasibility study for final remedy of the City's Subsites. This work by the PRPs is being performed under an AOC with EPA with state oversight.

Description:

Site Facts:

ENVIRONMENTAL PROGRESS



Due to the numerous cleanup actions and the number of contaminated areas and subsites at the Hastings Ground Water site, the status of cleanup activities varies. The ground water actions will be long-term. In general, however, the potential for exposure to hazardous substances in the ground water has been greatly reduced by closing down contaminated wells while further studies and cleanup activities are being planned and conducted. Further contamination of the ground water is being prevented by the EPA and other parties' efforts to clean up the sources of contamination. The EPA continues to monitor the quality of the ground water adjacent to the Hastings site, and informing property owners and businesses when contaminant levels exceed acceptable limits. Under an AOC with EPA, the potentially responsible party group are applying the Superfund process to determine a final remedy for the Hastings Ground Water site.

SITE REPOSITORY



Hastings Public Library, Fourth and
Denver Streets, Hastings, Nebraska
68901.

In addition, the Central Community
College Library, E. U.S. Highway 6,
Hastings, NE 68901 contains some
documents.

Superfund Records Center
901 N. 5th St.
Kansas City, KS 66101
Mail Stop SUPR
(913)551-4038

REGIONAL CONTACTS

SITE MANAGER:

Ron King

E-MAIL ADDRESS:

king.ronald@epa.gov.
(913) 551-7568

**COMMUNITY INVOLVEMENT
COORDINATOR:**

Dana Blubaugh

PHONE NUMBER:

(913) 551-7577

PUBLIC INFORMATION CENTER:

E-MAIL ADDRESS:

STATE CONTACT:

Mary Elkan

PHONE NUMBER:

402/471-2181

MISCELLANEOUS INFORMATION

STATE:

NE

07S2

CONGRESSIONAL DISTRICT:

03

EPA ORGANIZATION:

SFD-SUPR/IANE

MODIFICATIONS